

Remarks

Claims 1-77 are currently pending in the present application. No new matter was added by this Amendment. Applicant respectfully requests reexamination and reconsideration in view of the remarks contained herein.

I. Drawings

The Examiner has requested corrected drawings due to the drawings being unclear. However, it appears that the Examiner is reviewing the informal drawings filed with the application on October 2, 2001, rather than the formal drawings filed on January 29, 2002. Therefore, Applicant asserts that corrected, formal drawings have already been filed.

II. Claim Rejections under 35 USC § 112

Claims 1, 39, and 56-67 stand rejected under 35 USC § 112, second paragraph, due to terms identified by the Examiner as being indefinite. In particular, the Examiner asserts that the term “full currency” as recited in Claim 1 is a relative term that renders the claim indefinite. However, the specification of the present application clearly states that a “full currency amount is generally the amount of currency in the ATM 20 (or canister(s)) after a currency reset is performed.” Page 13, lines 3-5. Therefore, the specification does provide a standard for ascertaining the requisite degree of the term “full currency.” Furthermore, one of ordinary skill in the art would be able to reasonably construe that the term “full currency,” when relating to an ATM and value-holding canisters or receptacles, means an amount of currency when the ATM canister or receptacle is considered “filled” or “full,” such as after the currency is deposited or reset at the ATM. Consequently, Applicant asserts that the term “full currency” as recited in Claim 1 is definite.

The Examiner also asserts that the term “changing the first amount of currency” in Claim 1 is a relative term that renders the claim indefinite. Again, Applicant asserts that the term “changing the first amount of currency” is definite. For example, as stated in the specification of the present application, “[b]efore a financial transaction occurs, the ATM 20 includes a first amount of currency. The first amount of currency in the ATM 20 can fall anywhere within the range of currency amounts between an empty currency amount and a full currency amount.”

Page 12, lines 26-29. The specification also states that “[o]nce currency has been dispensed, the ATM 20 includes a second amount of currency. The second amount of currency in the ATM 20 is preferably within the range of currency amount, although the second amount is a value lesser than the first amount....” Page 13, lines 28-31. Therefore, as described in the present application, when a transaction occurs at an ATM, the first amount of currency included in an ATM is changed (i.e., to a second amount of currency). Clearly, changing the amount of currency held in an ATM is a definite, both as described in the specification and as construed by one of ordinary skill in the art. For example, it is well known that an ATM holds a limited amount of currency and, therefore, when an ATM dispenses currency, the amount of currency held in the ATM is changed (i.e., reduced). Consequently, Applicant asserts that the term “changing the first amount of currency” as recited in Claim 1 is definite.

In addition, the Examiner asserts that the term “a most recent currency amount” in Claims 56 and 57 is a relative term that renders the claim indefinite. As noted above, as transactions and administrative events (e.g., currency resets) are performed at an ATM, the amount of currency held in the ATM can change (e.g., increases or decreases). As described in the present application, “[e]ach time a financial transaction is requested by an ATM customer, the ATM 20 communicates with the processor....” Page 14, lines 1-2. As further described in the present application, the data received by the processor 15 [from the ATM 20] preferably corresponds to a number of different values that indicate what is occurring or has occurred in the ATM 20. In one embodiment, the data received includes data corresponding to the amount of currency in each receptacle of the ATM 20 and/or each ATM 20.” Page 14, lines 16-20.

Therefore, it is clear from the plain language of the claims and the specification of the present application, that the processor receives data representing an amount of currency held in an ATM at particular points in time. Consequently, as recited in Claims 56 and 57, if a user wants to know the amount of currency currently held in an ATM, the processor obtains the most recent data or the most recent currency amount received from the ATM. Accordingly, Applicant asserts that the term “a most recent currency amount” as recited in Claims 56 and 57 is definite.

Furthermore, the Examiner asserts that the term “currency amounts is represented as a plurality of negative numbers” in Claim 39 is a relative term that renders the claim indefinite.

Applicant asserts that from the plain language of the claims, the term “currency amounts is represented as a plurality of negative numbers” is definite. First, as noted above, an ATM provides a plurality of currency amounts over a period of time, each of the plurality of currency amounts indicating an amount of currency held by the ATM at a particular point in time. As recited in Claim 39, in one embodiment, the currency amounts are greater than zero.

In addition, data representing the received currency amounts is output to a user (e.g., in response to a query). In one embodiment, as recited in Claim 39, the outputted data representing the received currency amounts can be represented as negative amounts. Clearly, one of ordinary skill in the art would recognize that data representing currency amounts held by an ATM over a period of time can be represented to a user in various formats and styles, such as in a negative format. For example, if an ATM holds an amount of \$100.00 at a particular point in time, it may be useful or desired to display the currency amount as -\$100.00 to a user (e.g., for accounting purposes). Consequently, Applicant asserts that the term “currency amounts is represented as a plurality of negative numbers” as recited in Claim 39 is definite.

III. Claim Rejections under 35 USC § 102(b)

Claims 1-13, 15-17, 19, 22, 28-38, 45-55, 58-59, 61, 63, and 65-71 stand rejected under 35 USC § 102(b) as being anticipated by U.S. Patent No. 4,660,168 issued to Grant et al. (hereinafter referred to as “Grant”). As described below in more detail, Grant does not teach or suggest the subject matter of these claims.

A. Independent Claim 1

Independent Claim 1 recites:

A method of managing an ATM, comprising:

providing a processor adapted to be coupled to an ATM, the ATM including a receptacle configured to retain a range of currency amounts between and including an empty currency amount and a full currency amount;

receiving first data from the ATM, wherein the first data corresponds to a first amount of currency in the receptacle between the empty currency amount and the full currency amount;

storing the first data in a memory associated with the processor;

receiving a transaction request at the ATM;
changing the first amount of currency in the receptacle to a second amount of currency in response to the transaction request, wherein the second amount of currency in the receptacle is between the empty currency amount and the full currency amount;
receiving second data from the ATM, the second data corresponding to the second amount of currency in the receptacle;
storing the second data in the memory associated with the processor;
receiving a query for at least one of the first data and the second data; and
outputting data corresponding to the at least one of the first data and the second data in response to the query.

Grant does not teach or suggest all of the features of Claim 1. Among other elements, Grant does not teach or suggest “receiving first data from the ATM, wherein the first data corresponds to a first amount of currency in the receptacle between the empty currency amount and the full currency amount;” “storing the first data in a memory associated with the processor;” “receiving second data from the ATM, the second data corresponding to the second amount of currency in the receptacle;” “storing the second data in the memory associated with the processor;” “receiving a query for at least one of the first data and the second data;” and “outputting data corresponding to the at least one of the first data and the second data in response to the query,” as recited in Claim 1.

Rather, Grant discloses an “apparatus...for reducing customer transaction time in an automated teller machine (ATM)....” Abstract. In particular, the apparatus disclosed in Grant includes “‘smart’ or intelligent peripherals associated with the ATM and a novel task handling system. ... Each of the peripheral devices includes a subsystem controller having a dedicated processor and memory for facilitating parallel transaction event processing among the devices.” Col. 2, lines 29-38. For example, as disclosed in Grant, “after a card is detected by the card handler mechanism, the ATM may simultaneously perform the following command/request events: printing header information on the customer receipt, retrieving card data form the encoded magnetic stripe and requesting the customer to enter his/her personal identification number. Likewise, after PIN entry and validation, and transaction selection and host authorization, the ATM may perform the following command/request events simultaneously:

printing the transaction description on the print receipt and dispensing currency.” Col. 2, lines 56-67.

Grant, therefore, merely discloses using dedicated processors associated with ATM peripherals in order to perform parallel event processing. Among other things, Grant does not teach or suggest “receiving first data from the ATM, wherein the first data corresponds to a first amount of currency in the receptacle between the empty currency amount and the full currency amount.” In fact, Grant makes no mention whatsoever of receiving data from an ATM corresponding to currency held in the ATM, and, furthermore, Grant makes no mention whatsoever of monitoring or recording the amount of currency held in an ATM or a receptacle of an ATM. Applicant further asserts that the section of Grant cited by the Examiner as disclosing “receiving first data from the ATM...” merely states that “[i]f an amount is required [for a transaction performed at an ATM], it is then chosen by the customer from a menu display or entered one digit at a time...” Col. 13, lines 31-34. Applicant asserts that obtaining a transaction amount from a customer (e.g., an amount of money to withdraw or an amount of money to transfer) does not correspond “to a first amount of currency in the receptacle,” as recited in Claim 1. Furthermore, the transaction amount disclosed in Grant is obtained from a customer and not from an ATM. Therefore, this section of Grant makes no mention whatsoever of receiving data from an ATM indicating an amount of currency held in the ATM.

Consequently, Grant also does not teach or suggest “storing the first data in a memory associated with the processor,” as recited in Claim 1. Again the Applicant asserts that the section of Grant cited by the Examiner as disclosing “storing the first data...” makes no mention of storing data indicating an amount of currency held in an ATM in a memory. Rather, the section of Grant cited by the Examiner merely states that “each of the subsystem controllers 94-102 include a dedicated processor and memory for controlling peripheral devices associated with the ATM.” Col. 7, lines 67-68 and Col. 8, lines 1-2. The mere fact that Grant discloses a processor and memory does not teach or suggest storing data indicating an amount of currency held in the ATM in memory.

Similarly, Grant also does not teach or suggest “receiving second data from the ATM, the second data corresponding to the second amount of currency in the receptacle” or “storing the second data in the memory associated with the processor,” as also recited in Claim 1.

In addition, Grant does not teach or suggest “receiving a query for at least one of the first data and the second data,” as recited in Claim 1. As noted above, Grant makes no mention whatsoever of recording or receiving data indicating an amount of money held in an ATM. Therefore, Grant clearly does not teach or suggest receiving a query for the amount of money held in an ATM. The Examiner cites Col. 14, lines 10-55 of Grant as disclosing “receiving a query for at least one of the first data and the second data.” However, this section of Grant merely discloses events that occur during a transaction with a customer and which events can be paired in order to provide parallel processing. None of the events disclosed in this section relate to receiving a query for an amount of money held in an ATM at a particular time.

Similarly, since Grant does not teach or suggest receiving a query, Grant also does not teach or suggest “outputting data corresponding to the at least one of the first data and the second data in response to the query,” as recited in Claim 1. Generally, as noted above, Grant makes no mention whatsoever of recording or managing an amount of currency held in an ATM. Therefore, Grant does not teach or suggest outputting data representing an amount of currency held in an ATM.

The Examiner cites Col. 13, lines 49-58 of Grant as disclosing “outputting data corresponding to the at least one of the first data and the second data in response to the query.” However, this section of Grant only discloses activities performed by an ATM during a customer-initiated transaction. In particular, this section of Grant states:

Following the activities 224, 225, 228 and 230, the last line of the customer receipt (whose header was printed in step 214 and transaction descriptor in step 224) is then printed, and the customer receipt is cut and delivered as indicated by reference numeral 232. Following this step, another sequence of parallel events can occur; specifically, the return/capture of the user card and the actual delivery of the cash to the user from dispenser, as represented by the steps 234 and 236, respectively.

Col. 13, lines 49-58.

Clearly, this section of Grant makes no mention whatsoever of outputting data corresponding to an amount of currency held in an ATM. This section merely discloses generating a receipt and providing the receipt, the user's card, and cash to the user.

Therefore, Grant at least does not teach or suggest "receiving first data from the ATM, wherein the first data corresponds to a first amount of currency in the receptacle between the empty currency amount and the full currency amount;" "storing the first data in a memory associated with the processor;" "receiving second data from the ATM, the second data corresponding to the second amount of currency in the receptacle;" "storing the second data in the memory associated with the processor;" "receiving a query for at least one of the first data and the second data;" and "outputting data corresponding to the at least one of the first data and the second data in response to the query," as recited in Claim 1. Consequently, for at least the reasons set out above, independent Claim 1 and dependent Claims 2-22, which depend on Claim 1, are allowable. Similar rationale can also be applied to independent Claims 23 and 45 and dependent Claims 24-44 and 46-65 that depend on Claims 23 and 45, respectively. Therefore, for at least the reasons set out above, Claims 1-65 are allowable.

B. Independent Claim 66

Independent Claim 66 recites:

A method of managing an ATM, comprising:

providing a processor configured to establish communication with at least one courier service and with at least one ATM;

retrieving data corresponding to at least one courier service, wherein the data includes courier information and schedule information of the courier;

sending from the ATM to the processor at least one of data corresponding to currency amounts in the ATM and status signals corresponding to ATM operation;

updating the schedule information of the courier in response to at least one of the data received and the status signals received by the processor; and

sending the updated schedule information from the processor to the at least one courier.

Grant does not teach or suggest all of the features of Claim 66. Among other elements, Grant does not teach or suggest "providing a processor configured to establish communication

with at least one courier service and with at least one ATM;" "retrieving data corresponding to at least one courier service, wherein the data includes courier information and schedule information of the courier;" "sending from the ATM to the processor at least one of data corresponding to currency amounts in the ATM and status signals corresponding to ATM operation;" "updating the schedule information of the courier in response to at least one of the data received and the status signals received by the processor;" and "sending the updated schedule information from the processor to the at least one courier," as recited in Claim 66.

First, Grant makes no mention whatsoever of a courier service. Therefore, Grant does not teach or suggest "providing a processor configured to establish communication with at least one courier service and with at least one ATM," as recited in Claim 66. Consequently, Grant also does not teach or suggest "retrieving data corresponding to at least one courier service, wherein the data includes courier information and schedule information of the courier;" "updating the schedule information of the courier in response to at least one of the data received and the status signals received by the processor;" and "sending the updated schedule information from the processor to the at least one courier," as also recited in Claim 66.

In addition, as described above with respect to Claim 1, Grant does not teach or suggest maintaining or manipulating data representing currency amounts held in an ATM. In addition, Grant does not teach or suggest maintaining or manipulating a status signal indicating operation of an ATM. Therefore, Grant clearly does not teach or suggest "sending from the ATM to the processor at least one of data corresponding to currency amounts in the ATM and status signals corresponding to ATM operation," as recited in Claim 66.

Accordingly, Grant does not teach or suggest "providing a processor configured to establish communication with at least one courier service and with at least one ATM;" "retrieving data corresponding to at least one courier service, wherein the data includes courier information and schedule information of the courier;" "sending from the ATM to the processor at least one of data corresponding to currency amounts in the ATM and status signals corresponding to ATM operation;" "updating the schedule information of the courier in response to at least one of the data received and the status signals received by the processor;" and "sending the updated schedule information from the processor to the at least one courier," as

recited in Claim 66. Consequently, for at least the reasons set out above, independent Claim 66 and dependent Claims 67-77, which depend on Claim 66, are allowable.

IV. Claim Rejections under 35 USC § 103(a)

Claims 14, 18, 20-21, 23-27, 39-44, 56-67, 60, 62, 64, and 72-77 stand rejected under 35 U.S.C. § 103(a) as being anticipated by Grant in view of Official Notice taken by the Examiner. As described below in more detail, Applicant traverses the Examiner's use of Official Notice and the obviousness rejection.

A. Claim 14

With regard to Claim 14, the Examiner acknowledges that Grant does not teach or suggest that the received query is a query for a total amount of currency in the ATM and that the outputted data is the total amount of currency in the ATM. The Examiner, however, takes Official Notice that querying for an amount of currency and outputting an amount of currency is "old and well established in the business practice as a convenient way for knowing and obtaining financial data." Applicant respectfully disagrees and traverses the Examiner's use of Official Notice and the obviousness rejection. Applicant reminds the Examiner that Claim 14 depends from Claim 1, and therefore, the limitations of Claim 14 cannot be read in a vacuum. Claim 14 is not generically claiming querying for financial data and outputting financial data but is claiming receiving data from an ATM that includes at least data corresponding to a total amount of currency in an ATM, allowing a user to query for data received from the ATM, and outputting data in response to the query. As described above with respect to Claim 1, Grant makes no mention of performing these acts. In addition, Applicant asserts that it is not well-known to perform these acts even considering the subject matter of Grant. Accordingly, dependent Claim 14 is allowable for at least the reasons set forth above with respect to Claim 1. If the Examiner disagrees, Applicant requests that the Examiner provide support for the Official Notice and the obviousness rejection.

B. Claim 18

With regard to Claim 18, the Examiner acknowledges that Grant does not teach or suggest that the received first and second data represent an amount of currency remaining in the

ATM. The Examiner, however, takes Official Notice that data representing “an amount of currency is old and well established in the business practice as a convenient way for knowing and obtaining financial data.” Applicant respectfully disagrees and traverses the Examiner’s use of Official Notice and the obviousness rejection. Applicant reminds the Examiner that Claim 18 depends from Claim 1, and therefore, the limitations of Claim 18 cannot be read in a vacuum. Claim 18 is not generically claiming data representing a currency amount but is claiming receiving data from an ATM that includes at least data corresponding to an amount of currency remaining in an ATM, allowing a user to query for data received from the ATM, and outputting data in response to the query. As described above with respect to Claim 1, Grant makes no mention of performing these acts. In addition, Applicant asserts that it is not well-known to perform these acts even considering the subject matter of Grant. Accordingly, dependent Claim 18 is allowable for at least the reasons set forth above with respect to Claim 1. If the Examiner disagrees, Applicant requests that the Examiner provide support for the Official Notice and the obviousness rejection.

C. Claim 20

With regard to Claim 20, the Examiner acknowledges that Grant does not teach or suggest that the data identifying the ATM includes location information of the ATM. The Examiner, however, takes Official Notice that “including location data of the ATM is old and well established in the business practice as a convenient way for customer [sic] to locate the ATM.” Applicant respectfully disagrees and traverses the Examiner’s use of Official Notice and the obviousness rejection. Applicant again reminds the Examiner that Claim 20 depends from Claim 1, and therefore, the limitations of Claim 20 cannot be read in a vacuum. Claim 20 is not generically claiming data identifying a location of an ATM but is claiming receiving data from an ATM that includes at least data corresponding to a location of an ATM, allowing a user to query for data received from the ATM, and outputting data in response to the query. As described above with respect to Claim 1, Grant makes no mention of performing these acts. In addition, Applicant asserts that it is not well-known to perform these acts even considering the subject matter of Grant. Accordingly, dependent Claim 20 is allowable for at least the reasons set forth above with respect to Claim 1. If the Examiner disagrees, Applicant requests that the Examiner provide support for the Official Notice and the obviousness rejection.

D. Claim 21

With regard to Claim 21, the Examiner acknowledges that Grant does not teach or suggest that the data identifying the ATM includes data identifying the user from which the transaction is requested. The Examiner, however, takes Official Notice that “data identifying the user is old and well established in the business practice as an efficient way to validate user [sic].” Applicant respectfully disagrees and traverses the Examiner’s use of Official Notice and the obviousness rejection. Again, Applicant reminds the Examiner that Claim 21 depends from Claim 1, and therefore, the limitations of Claim 21 cannot be read in a vacuum. Claim 21 is not generically claiming data identifying a user requesting a transaction but is claiming receiving data from an ATM that includes at least data corresponding to a user requesting a transaction, allowing a user to query for data received from the ATM, and outputting data in response to the query. As described above with respect to Claim 1, Grant makes no mention of performing these acts. In addition, Applicant asserts that it is not well-known to perform these acts even considering the subject matter of Grant. Accordingly, dependent Claim 20 is allowable for at least the reasons set forth above with respect to Claim 1. If the Examiner disagrees, Applicant requests that the Examiner provide support for the Official Notice and the obviousness rejection.

E. Claims 23-27, 39-44, 56-67, 60, 62, 64, and 72-77

With regard to Claims 23-27, 39-44, 56-67, 60, 62, 64, and 72-77, Applicant asserts that these claims are allowable for at least the reasons set forth above with respect to Claims 1 and 66. Furthermore, Applicant asserts that it is not well-known to perform the features claimed in Claims 23-27, 39-44, 56-67, 60, 62, 64, and 72-77 even considering the subject matter of Grant. If the Examiner disagrees, Applicant requests that the Examiner provide support for the Official Notice and the rejection.

V. Conclusion

In light of the above, Applicant believes that the application is in condition for allowance and respectfully request that a timely Notice of Allowance be issued in this case. Applicant also requests that the Examiner telephone the attorneys of record in the event a telephone discussion would be helpful in advancing the prosecution of the present application.

Respectfully submitted,



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